

AMENDMENT TO THE CLAIMS

1.(Currently Amended) A burn-in oven having a heat control system comprising an oven chamber, at least a plurality of generally parallel, spaced apart one burn-in boards, each supporting a plurality of devices under test, each device under test being supported in a support having a heat exchanger portion, a separate wall spaced from each burn-in board to form an airflow duct overlying each burn-in board, each wall being imperforate except for a plurality of fan openings therethrough, one fan opening overlying each device under test on an associated burn-in board, a plurality of separate controllable fans supported on each wall, each fan controlling flow through one fan opening through the associated wall forming an air flow duct, the wall being spaced from the heat exchanger portion, each fan being on a side of the associated wall opposite from the heat exchanger portions and when powered providing a controllable flow of air through the associated fan a separate opening in the associated wall forming the associated air flow duct onto the associated heat exchanger portion of the support supporting the device under test, and into a space adjacent the supports and the devices under test; and a source of cooling air open to the duct, and an exhaust for the cooling air from the oven chamber whereby a flow of cooling air is passed through the duct to each of across the separate fans, and a part of the air flow is directed through the associated fan opening in the wall forming the air flow duct toward the associated heat exchanger portion when a respective fan is operated, and air flow in the respective duct which is not directed by a fan through a fan opening flowing to the exhaust from the oven chamber.

2.(Previously Presented) The burn-in oven of claim 1, including a damper movable to adjust a size of a damper opening for the airflow to the air flow ducts, and a controller for controlling the opening of the damper in response to a selected parameter.

3.(cancelled)

4.(Cancelled)

5.(Cancelled)

6.(Previously Presented) The burn-in oven of claim 1, wherein said source of cooling air comprises a plenum chamber at the one end of said oven chamber, a second fan providing an airflow to the plenum chamber, and the second fan receiving a return airflow from the oven chamber.

7.(Cancelled)

8.(Cancelled)

9.(Previously Presented) The burn-in oven of claim 1, wherein said oven chamber has a heat exchanger for cooling air passing therethrough, said cooling air passing through the heat exchanger before entering the space.

10.(Cancelled)

11.(Currently Amended) The burn-in oven of claim 10, wherein there are a series of oven chambers side-by-side, and a heat exchanger between each of the adjacent oven chambers, the airflow from the exhaust of one oven chamber passing to ~~one~~ another oven chamber and through the heat exchanger between the one chamber and the other chamber.

12.(Currently Amended) In combination, a burn-in oven, ~~and a plurality of first trays in the burn-in oven, combined a cooling airflow source,~~ the burn-in oven defining a compartment, ~~the~~ a plurality of ~~first trays forming burn-in boards~~ having devices under test mounted thereon on a first side thereof in a preselected array and edges of the burn-in boards being supported on walls

of the compartment; a plurality of fan trays supported on walls of the compartment and each fan tray being spaced from the first side of ~~a one of the~~ burn-in boards ~~on a side of the respective burn-in board~~ so that the fan trays overlie and are spaced from the devices under test on the first side of the -associated burn-in board which underlies the respective fan tray, a laterally extending space above each of the fan trays comprising a plurality of airflow ducts, one between each fan tray, and an overlying burn-in board, the airflow ducts extending laterally to provide airflow to the fan trays, a plurality of fan outlet openings in each fan tray, the fan trays being otherwise imperforate, one fan outlet opening overlying each device under test associated with one respective underlying burn-in board, a plurality of controllable fans mounted on each fan tray, one controllable fan being mounted at each fan outlet opening, a source of cooling fluid flow on one lateral side of the airflow ducts, a controlled size inlet opening from the cooling airflow source to each of the ducts, an exhaust opening from the ducts to provide a flow of air through the respective duct, a separate temperature sensor for each device under test to sense the temperature of the respective device under test, and a controller for selectively controlling the operation of each controllable fan as a function of a temperature signal provided from the temperature sensor for the respective device under test underlying the respective controllable fan to operate the respective controllable fan to direct air from the respective duct onto the device under test underlying such controllable fan.

13.(Currently Amended) The combination of claim 12, wherein there is at least one adjustable damper for adjustably opening each respective space between the burn-in boards and an associated fan tray, the controller adjusting the position of the damper to provide a substantially constant bleed airflow through the associated space.

14.(Original) The combination of claim 13, wherein said devices under test comprise sockets supporting an integrated circuit under test, a finned heat exchanger on the socket, said finned heat exchanger extending into the space between each burn-in board tray and its associated overlying fan tray.

15.(Previously Presented) The combination of claim 13, including a heat exchanger for cooling airflow entering the ducts on one end of the burn-in oven.

16.(Previously Presented) The combination of claim 12, wherein said burn-in oven has a blower for providing the flow of cooling air to inlet ends of said ducts, and a flow passageway carrying air from said blower to the inlet ends to provide cooling air to each of the ducts.

17.(Currently Amended) The combination of claim 14 and individual heaters for heating each of the devices under test, said controller receiving the temperature signal from the respective device under test, and controlling its associated controllable fan and heater to maintain the temperature sensed at a desired range.

18.(cancelled)

19.(cancelled)

20.(cancelled)

21.(cancelled)

22.(cancelled)

23.(cancelled)

24.(cancelled)

25. (Cancelled)